

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,337,383 B1
APPLICATION NO. : 10/772597
DATED : February 26, 2008
INVENTOR(S) : Urbain Alfred von der Embse

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the drawings, Sheet 5, the word "our" in the title should be corrected to read "of".

In Claim 1, column 20, after line 43 please insert the missing page 2 of the submitted clean version of the Claims, which reads as follows:

"for evaluating said a-posteriori probability $p(s' | y(j < k))$ in equations (14) using $p(s | s', y(k))$ as the state transition a-posteriori probability of the trellis transition path $s' \rightarrow s$ to the new state s at k from the previous state s' at $k-1$ and given the observed symbol $y(k)$ to update these recursions for the assumed value of the user data bits $d(k)$ equivalent to the transmitted symbol $x(k)$ which is the modulated symbol corresponding to $d(k)$,
using a turbo decoding backward recursion equation

$$p(s' | y(j > k-1)) = \sum_{\text{all } s} p(s | y(j > k)) p(s' | s, y(k))$$

for evaluating the a-posteriori probability $p(s | y(j > k))$ in equations (15) using said $p(s' | s, y(k)) = p(s | s', y(k))$ as the state transition a-posteriori probability of the trellis transition path $s \rightarrow s'$ to the new state s' at $k-1$ from the previous state s at k and given said observed symbol $y(k)$ to update these recursions for said assumed value of $d(k)$, evaluating the natural logarithm of the state transition posteriori probability $p(s | s', y(k)) = p(s' | s, y(k))$ equal to a new decisioning metric DX in equations (11), (16), defined by equation

$$\begin{aligned} \ln[p(s | s', y(k)) = \ln[p(s' | s, y(k))] \\ = \text{Re}[y(k)x^*(k)]/\sigma^2 - |x(k)|^2/2\sigma^2 + p(d(k)) \\ = DX \end{aligned}$$

wherein p is the natural logarithm \ln of p , x^* is the complex conjugate of x , and $\ln[o]$ is the natural logarithm of $[o]$,

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,337,383 B1
APPLICATION NO. : 10/772597
DATED : February 26, 2008
INVENTOR(S) : Urbain Alfred von der Embse

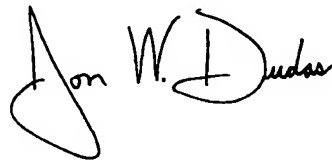
Page 2 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

whereby said new state transition probabilities in said MAP
equations use said DX linear in $y(k)$ in place of the
current use of the maximum likelihood decisioning metric"

Signed and Sealed this

Twenty-second Day of July, 2008

A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is stylized with a large, looped initial "J" and a distinct "D" at the end.

JON W. DUDAS
Director of the United States Patent and Trademark Office